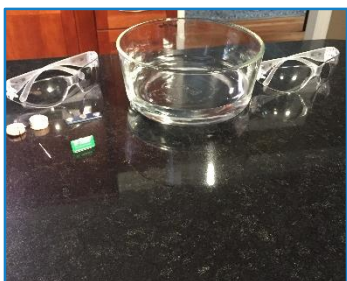


Presented by

**BASF**  
We create chemistry

## WHAT YOU WILL NEED:

- A piece of cork
- Needle
- Magnet
- Water
- A glass or other non-metallic bowl
- Adult supervision
- Safety goggles



# MAGNETIC COMPASS

## Overview and objective:

Students will learn how to make a compass that points to magnetic north.

## Procedure:

1. Carefully hold your needle by the dull end. Rub it repeatedly in circles across the magnet. (For about 2 minutes)
2. Pour water into the bowl.
3. Place the piece of cork onto the water. (Parents, we used the bottom a wine cork, cutting off a circular piece about a  $\frac{1}{4}$  inch thick. Please be careful when doing this for your student!)
4. Carefully balance your needle on top of the bobbing cork.
5. You'll quickly see it spin round to face magnetic north!
6. Check your compass by placing a real compass next to it to see if it's pointing the same way. We didn't test this, but we hear that there's a compass APP that's very accurate!

**Magnetic North** is the direction in which the north end of a compass needle or other freely suspended magnet will point in response to the earth's magnetic field. It deviates from true north over time and from place to place because the earth's magnetic poles are not fixed in relation to its axis. Magnetic North is also known as North Dip Pole.

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